

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-65. (canceled)

66. (Currently amended) A diagnostic kit comprising an isolated monoclonal antibody, or a fragment thereof, that

[[a)]] binds EA1 polypeptide of *B. anthracis*, and

~~b) specifically binds spores and vegetative cells of *B. anthracis* but not the spores or vegetative cells of *B. thuringiensis*, *B. cereus*, *B. globigii*, and *B. licheniformis*~~

wherein said antibody is produced by a hybridoma deposited with ATCC and
accorded accession number PTA-2632.

67. (Currently amended) The diagnostic kit of claim 66, further comprising a colloidal particle based lateral flow detection system.

68. (Currently amended) The diagnostic kit of claim 66, further comprising a detection system selected from a carbon based lateral flow system; a fluorescent based assay system, a chemiluminescent system, an up converting phosphors system, a refractive indexed based detection system, a magnetic bead or latex bead system, and a micro array system.

69. (canceled)

70. (Previously presented) The diagnostic kit of claim 66, wherein said antibody, or a fragment thereof, does not bind *B. cereus*.

71. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof is *B. anthracis* specific.

72. (Currently amended) The kit of claim 66, wherein said antibody ~~is an IgA, IgD, IgE, IgG, or IgM~~ or fragment thereof does not bind *B. thuringiensis*.

73. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof binds to SEQ ID NO:1 or an antigenic portion thereof.

74. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof specifically binds *B. anthracis* spores.

75. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof specifically binds *B. anthracis* vegetative cells.

76. (Currently amended) The kit of claim 66, wherein said antibody ~~is a murine antibody; a rabbit antibody; a rat antibody; a genetically engineered antibody; a recombinant antibody; a humanized antibody; a polyclonal antibody or an affinity purified antibody~~ or fragment thereof does not bind *B. globigii*.

77. (Previously presented) The kit of claim 66, wherein said fragment is an Fab or Fv fragment.

78. (Currently amended) The kit of claim 66, wherein said antibody ~~is produced by a hybridoma deposited with ATCC and accorded accession number PTA-2632~~ or fragment thereof does not bind *B. licheniformis*.

79. (Currently amended) An isolated monoclonal antibody, or a fragment thereof, that

[[a]] binds EA1 polypeptide of *B. anthracis*, ~~and~~
~~b) specifically binds spores and vegetative cells of *B. anthracis* but not the spores or vegetative cells of *B. thuringiensis*, *B. cereus*, *B. globigii*, and *B. licheniformis*~~
wherein said antibody is produced by a hybridoma deposited with ATCC and
accorded accession number PTA-2632.

80. (Previously presented) The antibody or fragment thereof of claim 79, wherein said antibody or fragment thereof is *B. anthracis* species specific.

81. (Currently amended) The antibody or fragment of claim 79, wherein said antibody ~~is an IgA, IgD, IgE, IgG, or IgM~~ or fragment thereof does not bind *B. thuringiensis*.

82. (Previously presented) The antibody or fragment thereof of claim 79, wherein said antibody or fragment thereof binds to SEQ ID NO:1 or an antigenic portion thereof.

83. (Currently amended) The antibody or fragment thereof of claim 79, wherein said antibody ~~is a murine antibody; a rabbit antibody; a rat antibody; a genetically engineered antibody; a recombinant antibody; a humanized antibody; a polyclonal antibody or an affinity purified antibody; or an antibody produced by a hybridoma deposited with ATCC and accorded accession number PTA-2632~~ or fragment thereof does not bind *B. cereus*.

84. (Previously presented) The antibody or fragment thereof of claim 79, wherein said fragment is an Fab or Fv fragment.

85. (Currently amended) A method of detecting *B. anthracis* spores or cells in a sample, said method comprising

contacting a monoclonal antibody, or fragment thereof, ~~that specifically binds spores and vegetative cells of *B. anthracis* but not the spores or vegetative cells of *B. thuringiensis*, *B. cereus*, *B. globigii*, and *B. licheniformis*~~ with a sample, containing a *B. anthracis* spore or cell, to form a complex comprising said antibody, or fragment, and ~~said *B. anthracis* spores or cells~~ a *B. anthracis* spore or cell, and

detecting said complex, ~~which contains *B. anthracis* spores or cells~~ from said sample;

wherein said antibody is produced by a hybridoma deposited with ATCC and accorded accession number PTA-2632.

86. (Previously presented) The method of claim 85, wherein said antibody or fragment thereof binds EA1 polypeptide of *B. anthracis*.

87. (Previously presented) The method of claim 85, wherein said antibody or fragment thereof is *B. anthracis* species specific.

88. (Currently amended) The method of claim 85, wherein said antibody is an IgA, IgD, IgE, IgG, or IgM or fragment thereof does not bind *B. thuringiensis*.

89. (Previously presented) The method of claim 85, wherein said antibody or fragment thereof binds to SEQ ID NO:1 or an antigenic portion thereof.

90. (Currently amended) The method of claim 85, wherein said antibody ~~is a murine antibody; a rabbit antibody; a rat antibody; a genetically engineered antibody; a recombinant antibody; a humanized antibody; a polyclonal antibody or an affinity purified antibody or fragment thereof does not bind *B. cereus*.~~

91. (Previously presented) The method of claim 85, wherein said fragment is an Fab or Fv fragment.

92. (Currently amended) The method of claim 85, wherein said antibody is ~~produced by a hybridoma deposited with ATCC and accorded accession number PTA 2632~~ or fragment thereof does not bind *B. licheniformis*.

93. (Previously presented) The method of claim 85, wherein said contacting comprises a colloidal particle based lateral flow detection system.

94. (Previously presented) The method of claim 85, wherein said detecting comprises a detection system selected from a carbon based lateral flow system; a fluorescent based assay system, a chemiluminescent system, an up converting phosphors system, a refractive indexed based detection system, a magnetic bead or latex bead system, and a micro array system.

95. (Currently amended) The method of claim 85, wherein said complex comprises a *B. anthracis* spores ~~spore~~.

96. (Previously presented) The method of claim 85, wherein said complex comprises a *B. anthracis* vegetative cells ~~cell~~.

97. (New) The method of claim 85, wherein said antibody or fragment thereof does not bind *B. globigii*.